

**REMARKS**

The Applicants do not believe that entry of the foregoing amendment will not introduce new matter into the present application for invention. Therefore, the Applicants, respectfully, request that the above amendment be entered in and that the claims to the present application be, kindly, reconsidered.

The Final Office Action dated December 29, 2003 has been received and considered by the Applicants. Claims 1 through 20 are pending in the present application for invention. Claims 1 through 20 stand rejected by the April 9, 2003 Office Action.

The Final Office Action objects to the drawings, the Examiner stated in the previous office action that the drawing objection can be held in abeyance until the present application for invention is allowed.

The Final Office Action rejects Claim 20 under the provisions of 35 U.S.C. §112, second paragraph, as being indefinite for failing to particular point out indistinctly claim the subject matter which the Applicants regard as the invention. The Examiner states that the phrase "the replacement the information within the signal" is vague and indefinite. This oversight has been corrected by the foregoing amendment to the claims of the present invention.

Claims 10-13, 15, 16 and 18-20 are rejected under the provisions of 35 U.S.C. §102 (e) as being anticipated by U.S. Patent No. 6,404,781 issued in the name of Kawamae et al. (Kawamae et al.).

The Final Office Action asserts that Kawamae et al. discloses the invention as recited by the rejected claims. The Examiner states that invention as recited by the rejected claims for transcoding a digital video signal, for receiving and for decoding a video signal are anticipated by Kawamae et al. "To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently." In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997). The Examiner contends that the additional information placed into the video data by Kawamae et al. is equivalent to replacing a sub-series of bits of video data, including the accommodation of the auxiliary bit stream defining replacement data within the user data fields of the main bit stream as recited by the rejected claims to the present invention. The Applicants, respectfully, disagree.

The Examiner contends that Figure. 3; column 1, lines 25-34; column 6, lines 49-56; column 7, lines 37-57; column 9, lines 17-22; and column 10, lines 38-49 of Kawamae et al.

discloses the recited elements of the rejected claims of receiving an auxiliary bitstream containing replacement information for the image area of the image with the auxiliary bitstream accommodated within the user data field of the main bitstream and the means for replacing the sub-series of bits of the main bitstream representing the image areas by the replacement video information to obtain the modified bitstream.

Column 1, lines 25-34 of Kawamae et al., briefly discusses a data transmission method for embedding or concealing additional information and for reproducing or detecting the additional information.

Claim 6, lines 49-56 of Kawamae et al., states that additional information is embedded or canceled within the video data.

Column 7, lines 37-57 of Kawamae et al., details the process for embedding video information as replacement by forming pixel blocks in terms of pixel resolution and encoding the additional information within the pixel blocks using a residuum of division related to the pixel resolution. This portion of column 7 describes the pixel block shown in Figure 3 of Kawamae et al.

Column 9, lines 17-22 of Kawamae et al., states that the process for embedding additional information to which error correction codes are added is accomplished by embedding one (1) bit of additional information at predetermined points, repetitively.

Column 10, lines 38-49 of Kawamae et al., indicates that in an MPEG format, the repetition number for the additional data can be placed in the header or the GOP.

The foregoing sections of Kawamae et al., that are cited by the Examiner, relate to repeating the same additional information P times in order to reduce error rates, and the decoding of the additional that is accomplished by employing a majority rule algorithm (see Kawamae et al. column 8, lines 30-46 and column 9, lines 34-59). Regarding the rejected claim elements relating to decoding, Kawamae et al., does not disclose the reception of a main bitstream representing an image in a video signal and an auxiliary bitstream representing replacement video information for an image area of the image followed by a replacing of the image area with the replacement information. Kawamae et al., simply detects the replacement information numerous ("P") times and employs majority rule decision to determine the additional data in order to reduce errors. Therefore, Applicants, respectfully, submit that the foregoing portions of Kawamae et al. do not disclose the recited elements of receiving an auxiliary bitstream

containing replacement information for the image area of the image.

Moreover, that the foregoing portions of Kawamae et al. do not disclose the recited elements relating to the auxiliary bitstream being accommodated within the user data field of the main bitstream. The Applicants would like to, respectfully, remind the Examiner of the statement contained within the MPEP at §2173.01, that the Applicants are their own lexicographers and can define in the claims what they regard as their invention essentially in whatever terms they choose so long as the terms are not used in ways that are contrary to accepted meanings in the art. The term User Data Field has been defined in the specification to the present invention in Figure 2, USR 22, in manner that is consistent with that used for data fields accepted within the art. The Applicants are not certain of the definition that the Examiner has applied to the term User Data field because the Examiner has not supplied any definition, nor has the Examiner identified where this term, as defined by the Examiner, can be found within Kawamae et al. Rejected Claim 12 recites that the auxiliary bitstream is accommodated within data user fields of the main bitstream and the Examiner has not identified where within the cited reference Kawamae et al.; (1) there exist any user data field within the main bitstream; or (2) the auxiliary bitstream is accommodated within data user field of the main bitstream. The Examiner has only made a cursory statement that the recited element of the auxiliary bitstream being accommodated within data user field of the main bitstream is found within the numerous cited portions of Kawamae et al. The Applicants, respectfully, disagree.

Rejected Claim 18 to the present invention defines a video signal having an image area encoded into a sub-series of bits and replacement video information for said image area represented by another sub-series of bits having the same number of bits. Kawamae et al., embeds additional information into pixel blocks of video data (see column 9, beginning at line 17). Kawamae et al. do not disclose, or suggest, a sub-series of bits defining an image area and replacement data for the image area also defined by a sub-series of the same number of bits as recited by rejected Claim 18 to the present invention. Kawamae et al. do not teach representing an image area to be replaced as a sub-series of bits within a video signal. Moreover, rejected Claim 19 recites indicia identifying the block size of the replacement video information which the Examiner states is anticipated by the MPEG header taught on Column 10, lines 38-49 of Kawamae et al. Apparently, the Examiner is referring to the statement that the number of repetitions "P" of the same data that Kawamae et al. states can be included in the MPEG header.

The Applicants would like to, respectfully, point out that the number of repetitions "P" does not identify the block size of replacement video information but instead identifies the number of times the identical replacement video information is repeated.

Additionally, rejected Claim 20 recites an identifier that identifies the existence of replacement information which the Examiner states is also anticipated by the MPEG header taught on Column 10, lines 38-49 of Kawamae et al. The Applicants would like to point out that the number of repetitions "P" of the same data within Kawamae et al. is not the same as identifying the existence of replacement information as recited by rejected Claim 20.

Accordingly, the rejection of Claims 10-13, 15, 16 and 18-20 as being anticipated by Kawamae et al. is respectfully traversed.

Claims 14 and 17 are rejected under the provisions of 35 U.S.C. §103 (a) as being obvious over Kawamae et al. in view of U.S. Patent No. 6,490,355 issued in the name of Epstein (Epstein). Specifically, the Final Office Action states that Epstein teaches conventional means for determining if the image area identifies copy protection status information. The Applicants would like to respectfully point out that rejected claim 14 recites the step of determining if the image area represented by the sub-series identifies copy protection. The combination of Kawamae et al. with Epstein does not reach the claimed invention as recited by rejected claim 14 wherein replacement data is defined as a sub-series of bits and this sub-series also identifies whether the replacement data identifies a copy protection status. The Applicants, respectfully, assert that Claim 14, which recites the modified bitstream as defining the sub-series of bits by a substantially same number of bits as the image area in the main bitstream, is allowable over the cited references. In the similar manner, rejected claim 17 recites means for determining if the image area represented by the sub-series of bits identifies copy protection status which is a feature that is not disclosed, or suggested, by the combination made by cited references, Kawamae et al. and Epstein. Accordingly, this rejection is, respectfully, traversed.

Claims 1-6 and 9 are rejected by the Final Office Action under the provisions of 35 U.S.C. §103 (a) as being obvious over Kawamae et al. in view of U.S. Patent No. 5,960,081 issued in the name of Vynne et al. (Vynne et al.). The Examiner states that Kawamae et al. do not disclose the arrangement for transmitting an auxiliary signal defining a sub-image to replace the modified image area with the replacement video information encoded by substantially the

same number of bits, wherein the replacement video information is the image area of the original signal, and wherein the replacement video information is encoded and represented by the same number of bits as the modified signal. The Examiner further states that Kawamae et al. do not disclose the arrangement wherein the auxiliary signal is accommodated in the user data fields of the bitstream and includes data defining the position and size of the replacement video information as recited by the rejected claims to the present invention. The Examiner asserts that the embedding of a digital signature in a video sequence as taught by Figures 2.1-2.3 of Vynne et al., and the conventional replacement of modified image areas as mentioned by Vynne et al., on column 1, lines 11-42, combined with Kawamae et al. renders obvious the claimed invention. Specifically, the Examiner states that it obvious to incorporate the video information as taught by Vynne et al. with the image coding and decoding system as disclosed by Figure 5 of Kawamae et al. to provide substantially the same auxiliary signal defining a sub-image to replace the modified video signal. Further, the Examiner asserts that the combination renders obvious the elements of the replacement video being represented by the same number of bits and that the auxiliary signal is accommodated in the user data fields of the bit-stream including data defining the position and/or size of the replacement video, indicating that these elements are shown by Kawamae et al. in Figure 3 and at column 7, lines 37-57 and column 10, lines 38-49.

Initially, the Applicants would like to, respectfully, point out that the combination made by the Final Office Action asserts to find elements that, simply put, are not found in the cited references. The Examiner asserts that Kawamae et al. in Figure 3 and at column 7, lines 37-57 and column 10, lines 38-49 discloses the elements of the replacement video being represented by the same number of bits and the element of the auxiliary signal being accommodated in the user data fields of the bitstream. The Applicants would like to, respectfully, point out that the incorporation of the replacement video, as recited by the auxiliary signal of the rejected claims, into user data fields of the bitstream are not mentioned in the cited sections of Kawamae et al. Neither is the incorporation of the replacement video into user data fields anywhere disclosed, or suggested, anywhere within Kawamae et al. or Vynne et al. Item 8 within Figure 5 of Kawamae et al. is simply disclosed as a Compressor/Encoder. Column 7, lines 37-57 of Kawamae et al. discusses embedding additional information within video data by dividing pixel data into pixel blocks and converting the pixel blocks into multiples of 256. Column 10, lines 38-49 Kawamae et al. discusses placing repetition numbers into MPEG

compressed video data. There is no mention of incorporating the replacement video into user data fields with the cited portions of Kawamae et al. or anywhere within Kawamae et al., as the Examiner contends.

The Examiner cites Figures 2.1-2.3 and column 1, lines 11-42 of Vynne et al. in the combination with Kawamae et al. made by the Final Office action. These cited portions of Vynne et al. relate to a placing of a logo, watermark or digital signature into a video signal and the retrieval of the logo, watermark or digital signature from the modified video signal. Thus, it is the modified image area containing the logo, watermark or digital signature that is retrieved by Vynne et al. The Applicants would like to, respectfully, point out that the rejected claims to the present invention recite elements that transmit and retrieve the auxiliary signal, which is the image area that was originally replaced by the logo, watermark or digital signature, and not to the retrieval of the logo, watermark or digital signature. These sections cited by the Final Office Action does not make any mention of replacement video being represented by the same number of bits and that the auxiliary signal. Moreover, there is no disclosure for placing the auxiliary signal in user data fields in the same bitstream as the modified signal as recited by rejected Claim 4 nor is any motivation provided to modify these cited references to arrive at the present invention as recited by the rejected claims. The Examiner specifically states in the Final Office Action that Kawamae et al. do not disclose the arrangement for transmitting an auxiliary signal defining a sub-image to replace by the modified image area with the replacement video information encoded by substantially the same number of bits. As previously discussed, there is also no disclosure or suggestion of these recited elements by Vynne et al. The Applicants, respectfully, submit that no reasonable reading of the cited references, either alone or in combination, results in a single video signal defining an image area and replacement data for that image area that is the original image data. Therefore, this rejection is, respectfully, traversed.

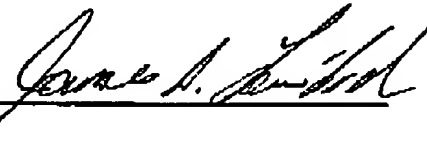
Claims 7 and 8 are rejected under the provisions of 35 U.S.C. §103 (a) as being obvious over Kawamae et al. and Vynne et al. further in view of Epstein. The Final Office Action states that the combination of Kawamae et al. and Vynne et al. does not disclose the modified signal which identifies copy protection status but that Epstein discloses protection status. The Applicants would like to, respectfully, point out that these claims should be viewed in their entirety, and that specific elements should not be separated from the remaining parts of the rejected claims and interpreted as if they were in a vacuum. A prima facie case of obviousness

does not result when specifically recited structure is rejected based on a similar function performed by a prior art reference. Epstein discloses the function but provides no structure that can read on the recited claim elements. A combination of Epstein with Kawamae et al. and Vynne et al. would result in identical copy protection hash mark being placed, repetitively, into a various pixels. A combination of Epstein with Kawamae et al. does not result in a method of transmitting video signals wherein an image area is replaced by a sub-series of bits wherein the replacement video information to is represented the sub-series having the same number of bits as the original video and the modified image area identifies copy protection status information. Accordingly, this rejection to claim 7 is respectfully traversed.

Rejected claim 8 to the present invention includes the limitations of claims 1, 4 and 7. Rejected claim 8 recites the additional element that the image is modified in such a manner that the modified video signal is not reproduced upon playback by conventional analog video recorders. The Examiner indicates that column 1, lines 11-42 of Vynne et al. discloses that the modified signal is not reproduced upon playback by a conventional analog video recorder. The Examiner states that this portion of Vynne et al. discloses that if the logo is removed that it will not be reproduced. However, column 1, lines 11-42 does teach the removal of a logo, this portion of Vynne et al. simply is speculating that if it were possible to remove the logo from a digital copy that perfect copies (i.e. digital copies) could be made. The Applicants fail to see how the Examiner can possibly read this portion of Vynne et al. on rejected Claim 8 that recites the image being modified is not be reproduced by an analog digital recorder. The Applicants reiterate the previously stated position that the Final Office Action has not properly addressed the recited elements of Claim 8, and a prima facie case of obviousness is not been made. Accordingly, this rejection is, respectfully, traversed.

In view of the foregoing amendment and remarks, the Applicants, respectfully, request that the claims to the present invention be reconsidered and a notice of allowance issue for the present application for invention.

Respectfully submitted,

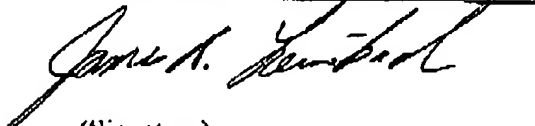
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